

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application:

Listing of Claims:

1. (Currently Amended) A system for rendering a display, comprising:
a drawing component that determines visible items to a display; [[and]]
a logic component that selectively defers layout of the visible items to the display in a just-in-time manner, the logic component determines complexity of the visible items in order to defer the layout, and the logic component associates a flag with the visible items, the flag being true for complex items and the flag being false for non-complex items; and
a rough layout component that determines an approximation for the visible items and identifies at least one object for which a final layout is to be completed before display thereof.
2. (Canceled)
3. (Canceled)
4. (Previously Presented) The system of claim 1, the complexity determined by a threshold number of subcomponents or children objects that are associated with the visible items.
5. (Canceled)
6. (Original) The system of claim 1, further comprising a final layout component that renders the visible items to the display.
7. (Original) The system of claim 1, the visible items are associated with subcomponents or children elements appearing within the visible items.

8. (Currently Amended) The system of claim [[5]] 1, the rough layout component performs a conceptual pass on the visible items when a user interface object is constructed and added to a container.
9. (Original) The system of claim 8, the rough layout component is controlled by an implementor of a class.
10. (Original) The system of claim 8, the rough layout component determines property bounds of an object.
11. (Original) The system of claim 8, the rough layout component sets a “Layout Valid” property to false to inform a system that a layout is to be completed before an object is displayed.
12. (Original) The system of claim 6, the final layout component is a virtual function with a signature FinalLayout (ShapeF region).
13. (Original) The system of claim 12, the final layout component determines that an item is visible and finalizes an internal structure in preparation for a draw function.
14. (Original) The system of claim 13, further comprising a region submitted to the final layout component that is employed to selectively finalize layout on children elements.
15. (Previously Presented) The system of claim 1, drawing component is a virtual function having the signature Draw(Graphics g, ShapeF updateRegion).
16. (Original) The system of claim 15, further comprising a supplied region that indicates an area to be filled in.
17. (Original) The system of claim 16, further comprising a window that is partially revealed where the region is smaller than a total area of the window, the region employed for display optimization.

18. (Original) The system of claim 1, further comprising at least one application, the application including at least one of a user interface component, a CAD system, a software development system, a modeling system, a drawing system, and a diagrammatic system.

19. (Original) A computer readable medium having computer readable instructions stored thereon for implementing at least one of the components of claim 1.

20. (Currently Amended) A system for rendering items to a display, comprising:
means for processing a set of display items;
means for determining a complexity value for the display items; and
means for associating a flag with the display items, the flag being true for complex items and the flag being false for non-complex items; [[and]]
means for rendering the display items based in part on the complexity value and the flag;
and
means for indicating that a layout for an object is to be completed before the object is displayed by configuring one or more properties of the object.

21. (Currently Amended) A method to facilitate selective updating of a display, comprising:
determining a rough layout for a collection of information items;
determining a complexity parameter for the information items;
associating a flag with the information items, the flag being true for complex items and the flag being false for non-complex items; [[and]]
tagging non-complex items from the collection for immediate display; [[and]]
selectively tagging remaining complex items from the collection for display at a later time; and
identifying one or more child elements of the information items for which respective layouts are to be completed before display of the one or more child elements.

22. (Original) The method of claim 21, further comprising providing a Final Layout function, a Layout Complete function, and a Draw function to render items to a display.

23. (Previously Presented) The method of claim 21, the Rough Layout is invoked is for components and subcomponent to be displayed, an approximate representation of a size of individual the components and subcomponents is calculated.

24. (Canceled)

25. (Previously Presented) The method of claim 21, further comprising a child element rendering process, the process including at least one of:

- 1) translating a region into local coordinates;
- 2) determining which child elements are potentially required to draw;
- 3) checking a layout validity of the child elements;
- 4) invoking Final Layout on any item for which LayoutValid=>false; and
- 5) invoking a draw function on child elements which overlap an update region.

26. (Currently Amended) A graphical user interface, comprising:

at least one display object for displaying contents of an information item; and

at least one layout function that selectively renders the display object based upon a determined graphical complexity associated with the information item, the layout function comprises creating a rough layout for the display object, identifying at least one child element of the display object for which a final layout is to be completed before display thereof, determining complexity of the information item, and creating a final layout for at least one visible portion of the display object if the information item is determined to be a complex information item.